

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

UNITED STATES OF AMERICA

v.

GREGG SMITH and
MICHAEL NOWAK,

Defendants.

No. 19-cr-00669

**SECOND SUPPLEMENTAL DECLARATION OF MUKARRAM ATTARI, PH.D.
August 21, 2023**

1. I submitted a declaration (the “Attari Declaration”) in this matter on April 10, 2023 and a supplemental declaration (the “Attari Supplemental Declaration”) in this matter on May 22, 2023. I have been asked by counsel for Gregg Smith to prepare calculations similar to those in the August 19, 2023 Supplemental Declaration of Jeremy Cusimano (“Cusimano Supp.”) and in the Government’s August 18, 2023 Supplemental Sentencing Memorandum.¹ My calculations are provided in Table 1.

Table 1

	Total Adjusted Loss	Overstatement of [1] as %
[1] Replication of Dr. Venkataraman’s Alternative Adjusted Loss (“Spread Crossing Method”) ²	\$32,723,945	
[2] Limit to Sequences with Sufficient Orders in Top 5 Levels	\$19,019,039	72%
[3] Limit Duration to 3.2 Seconds	\$13,161,456	149%
[4] Use a Reasonable Midmarket But-For Price	\$8,126,671	303%

2. Note that the losses shown in each row of Table 1 include adjustments in prior rows, meaning that the “Total Adjusted Loss” in row [4] also includes the adjustments in rows [2] and [3]. In row [2], I show the loss for Mr. Smith using only sequences where there are Spoof Orders in the top five price levels with combined outstanding quantity greater than the minimum quantity required under Dr. Venkataraman’s Methodology (e.g., 30 lots of gold). In these sequences, I define the Spoofing Period as the period of time where there is any Spoof Order in the top 5 levels. This is the calculation in Paragraph 2 of the Attari

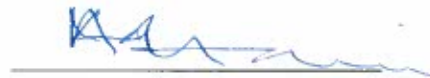
¹ All defined terms in the Attari Declaration and the Attari Supplemental Declaration are incorporated herein. My work and CRA’s support are still under the same engagement parameters as described in the Attari Declaration.

² As noted in the Attari Supplemental Declaration at ¶ 5, I was unable to replicate Dr. Venkataraman’s \$33,381,463 in Alternative Adjusted Loss for Mr. Smith, as stated in Table 6 of his Reply Declaration, which was presumably the starting point for the calculations in the Government’s August 18, 2023 Supplemental Sentencing Memorandum. The results in this table reflect my replication of his Spread Crossing Method, as modified in the Venkataraman Reply Declaration in response to some of my criticisms.

Supplemental Declaration that was specifically cited by the Court at the August 17, 2023 hearing. In row [3], I limit the duration to a maximum of 3.2 seconds using Mr. Cusimano's methodology, and, in row [4], I use the mid-market price as the But-For Price. *See* Cusimano Supp. ¶ 3.

3. In my opinion, however, even these revised figures are not a reasonable estimate of loss. For the reasons articulated in my prior-filed Declarations, it is impossible to fix the flaws in Dr. Venkataraman's Methodology through any ad hoc adjustments, including those calculated above. I nonetheless provide the above calculations, at the request of Mr. Smith's counsel, so the Court has available to it similar data for Mr. Smith as it has for Mr. Nowak.

Pursuant to 28 U.S.C. § 1746, I, Mukarram Attari, certify under penalty of perjury that the foregoing is true and correct. Executed on August 21, 2023.



Mukarram Attari, Ph.D.